



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO038759

Supplier: CRE002-VU
Crestwood Technology Group
1 Odell Plaza, Suite 139
Yonkers, NY 10701 USA
Phone: 1-866-779-0807
Fax: 914-375-4508

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO038759

PO Date: 1/11/18

Due Date: 1/17/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Revised

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	LN29677M4		Anchor Nut	Firmed	1/17/18	20 pcs	0 pcs	20 pcs	\$5.56/pcs	\$111.20
2	2000-8S		Hose Clamp	Firmed	1/17/18	8 Ea	0 Ea	8 Ea	\$6.50/Ea	\$52.00
3	2351-20-012-C3Y		Stud	Firmed	1/17/18	50 Ea	0 Ea	50 Ea	\$8.50/Ea	\$425.00
4	ALS7-1032-225		Insert Alternative P/N AELS7-1032-225 min. qty 1000	Firmed	1/17/18	1,000 Ea	0 Ea	1,000 Ea	\$0.73/Ea	\$730.00
Grand Total:										\$1,318.20

Order Notes

Procurement Quality Clauses
A005 RIGHT OF ENTRY
A016 PERSONNEL QUALIFICATION
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT
A033 STATEMENT OF CONFORMITY/TEST RECORDS FOR NAS, AN and MS FASTENERS
A040 NOTIFICATION OF QUALITY ESCAPE
A041 QUALITY MANAGEMENT SYSTEM
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENTS

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 1/18/18 3:34 PM Dart.Baker.Diane



Crestwood Technology Group



ACI-714641757824

Commercial Invoice

Invoice Number	Purpose of Shipment	Curr	Ult Dest.	Air Waybill Nbr.
	Sold	USD	CA	714641757824
Export Dt	C.I. References	Pkgs	Bill T/C	Bill D/T/F
1/23/2018	4062700	1	1517-9324-0	1517-9324-0
		BOX		

Shipper:
SHIPPING
CRESTWOOD TECHNOLOGY GROUP
1 ODELL PLAZA
SUITE 139
YONKERS
NY 10701 US (914) 779-3500
ID/EIN:113581124

Consignee:
Diane Baker
DART AEROSPACE LTD
1270 ABERDEEN STREET

HAWKERSBUR
ON K6A1K7 CA (613) 632-3336
ID/EIN:

Broker:

Importer:
Diane Baker
DART AEROSPACE LTD
1270 ABERDEEN STREET

HAWKERSBUR
ON K6A1K7 CA (613) 632-3336
ID/EIN:

Part Nbr: AELS7-1032-225	Marks/Nbrs:	Cntry MFG: US	Net Wgt: 0.00 lbs
HS Code:	Unit Qty: 1,000.00 EA	Unit Value: 0.730000	Commodity Value: 730.00

Desc: NUT

Total Shipment Weight:	7 lbs	Total Commodity Value:	730.00
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These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

Terms of Sale:	FCA
Freight:	0.00
Insurance:	0.00
Others:	0.00
Total Invoice Value:	730.00

Comments:

- 1)
- 2)
- 3)

I declare all information in this invoice to be true and correct.
Signature of shipper: SHIPPING 1/23/2018

Angel C. Caballero



CLICK BOND INC.
2151 LOCKHEED WAY
CARSON CITY, NV 89706-0713
PHONE: (775)885-8000
FAX: (775)883-0191

CERTIFICATION OF CONFORMANCE

Customer: THE FLIGHT SHOP INC

Customer PO: 3509

Customer P/N: CB92

Quantity: 200

Customer Rev Number: 2

Lot Number: 20170708-02-03

Click Bond P/N: CB92

MFG Lot: 50255194

Click Bond Rev Number: 2

Click Bond
Cage Code: 66530

Adhesive Batch: 70075165

SHELF LIFE:

Room Temperature(72°F)

6 Months

Exp. Date: 02-Jul-2018

Refrigerated(35-50°F)

1 Year

Exp Date: 02-Jan-2019

As the authorized representative of Click Bond, Inc. the undersigned, warrants and represents: the product identified on this Certificate of Conformance has been manufactured, inspected and unless otherwise noted, conforms in all respects to the applicable customer purchase order, drawings, specifications and standards. The information appearing herein is true and accurate. This certificate may be used to induce payment with the knowledge the information and certification may be used as a basis for such payment.

If no customer specific Quality Requirement is stipulated in your purchase order, goods produced are inspected to Click Bond's Registered Quality and Environmental Management Systems. The systems and procedures conform to the requirements of AS9100, ISO 9001, ISO 14001 and ISO 10012.

Click Bond, Inc. certifies these goods were not manufactured with and do not contain asbestos, ozone depleting substances, mercury, pure tin, pure zinc, cadmium, or radioactive material. This material is RoHS2 and REACH compliant. Complete reports of physical and chemical tests and composition are on file for customer examination.

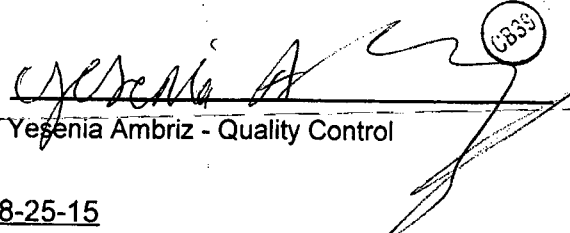
Products represented by this certificate of conformance were manufactured in the United States of America and, where applicable, comply with the requirements of DFARS252.225-7009 with Alternate 1.

Where applicable, Click Bond warrants the performance of the fixtures for 10 years from the date of certification.

"The first eight digits of the 'Lot Number' are the same as 'Our Order No.' on the packing list."

1/2/2018

Date of Certification


Yesenia Ambriz - Quality Control

Click Bond - CB200A - Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CB200A
Product Use/Class: Part A of 2 part Acrylic adhesive kit

Click Bond, Inc.
2151 Lockheed Way
Carson City, NV 89706-0713

Telephone: 775-885-8000
Non-Transportation Emergency Telephone No.: 800-255-3924
Emergency: Chemtel 24 Hour Emergency No.: 800-255-3924
Outside Continental USA: 813-248-0585 (Call Collect)

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Organic peroxides Type E
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Skin sensitization Category 1
Carcinogenicity Category 2
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (repeated exposure) Category 2 Blood, brain, Hematopoietic System, Kidney, Liver
Specific target organ systemic toxicity (repeated exposure) Category 1 Lungs
Hazardous to the aquatic environment - acute hazard Category 1
Hazardous to the aquatic environment - chronic hazard Category 2

GHS LABEL ELEMENTS:

Symbol(s)



Signal Word

DANGER

Hazard Statements

Heating may cause a fire.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure in contact with skin (Blood, brain, Hematopoietic System, Kidney, Liver).
Causes damage to organs through prolonged or repeated exposure (Lungs).
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep/Store away from clothing/ .? /combustible materials.
Keep only in original container.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/eye protection/face protection.
Use personal protective equipment as required.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.

Response

Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment (see supplemental first aid instructions on this label).
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Take off contaminated clothing and wash before reuse.
Collect spillage.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight.
Store at temperatures not exceeding .? °C/ .? °F. Keep cool.
Store away from other materials.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: Prolonged or repeated contact may result in dermatitis. IARC has designated titanium dioxide (TiO₂) as Group 2B - possibly carcinogenic to humans in dust form. However, a number of long term animal studies and human epidemiology studies evaluating TiO₂ and workplace exposure show insufficient evidence for carcinogenic affects. EPA, NTP and OSHA do not designate TiO₂ as a carcinogen and ACGIH designates TiO₂ as A4 - not classifiable as a human carcinogen. TiO₂ is not present in this product as a dust and no airborne exposure is expected during application.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Range
Epoxy resin	PROPRIETARY	40 - 45%
Isodecyl benzoate	131298-44-7	20 - 25%
Benzoyl peroxide	94-36-0	20 - 25%
Titanium dioxide	13463-67-7	1 - 5%

Any "PROPRIETARY" component(s) in the above table is considered trade secret, thus the specific chemical and its exact concentration is being withheld.

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIREFIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Keep containers tightly closed. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Avoid contact. Avoid breathing vapors. Use appropriate respiratory protection for large spills or spills in confined area.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the SDS form. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. Do not handle until all safety precautions have been read and understood. Empty containers should not be reused. Use with adequate ventilation.

STORAGE: Store only in well-ventilated areas. Keep container closed when not in use.

INCOMPATIBILITY: Amines, acids, water, hydroxyl, or active hydrogen compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

Chemical Name	ACGIH TLV		OSHA PEL		Skin
	TWA	STEL	TWA	CEILING	
Epoxy resin	N.E.	N.E.	N.E.	N.E.	N.A.
Isodecyl benzoate	N.E.	N.E.	N.E.	N.E.	N.A.
Benzoyl peroxide	5 mg/m ³	N.E.	5 mg/m ³	N.E.	N.A.
Titanium dioxide	10 mg/m ³	N.E.	15 mg/m ³	N.E.	N.A.

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

Engineering controls: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

RESPIRATORY PROTECTION: Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, a confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

ODOR:	No	VAPOR PRESSURE:	N.D.
APPEARANCE:	White	VAPOR DENSITY:	Heavier than Air
PHYSICAL STATE:	Paste	LOWER EXPLOSIVE LIMIT:	Not Applicable
FLASH POINT:	≥ 201°F (93°C) Setaflash Closed Cup	UPPER EXPLOSIVE LIMIT:	Not Applicable
BOILING RANGE:	100°C	EVAPORATION RATE:	Not Applicable
AUTOIGNITION TEMPERATURE:	N.D.	DENSITY:	10.00 lb/gal (1.2 g/cm ³)
DECOMPOSITION TEMPERATURE:	N.D.	VISCOSITY, DYNAMIC:	N.D.
ODOR THRESHOLD:	N.D.	VISCOSITY, KINEMATIC:	N.D.
SOLUBILITY IN H₂O:	Insoluble	VOLATILE BY WEIGHT:	5.98%
pH:	N.A.	VOLATILE BY VOLUME:	7.45%
FREEZE POINT:	N.D.	VOC CALCULATED:	0 lb/gal (0 g/l)
COEFFICIENT OF WATER/OIL DISTRIBUTION: N.D.			

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY: Amines, acids, water, hydroxyl, or active hydrogen compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes, metal oxides

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

Chemical Name	LD50/LC50
Epoxy resin	Oral LD50: Rat 11,400 mg/kg
Isodecyl benzoate	N.D.
Benzoyl peroxide	Oral LD50: Rat 6,400 mg/kg
Titanium dioxide	Oral LD50: Rat > 10,000 mg/kg GHS LC50 (vapor): Acute toxicity point estimate 55 mg/l

Germ cell mutagenicity: No classification proposed

Carcinogenicity: Category 2 - Suspected of causing cancer.

Components contributing to classification: Titanium dioxide.

Reproductive toxicity: No classification proposed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Epoxy resin	N.D.
Isodecyl benzoate	N.D.
Benzoyl peroxide	N.D.
Titanium dioxide	N.D.

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORT INFORMATION

CB200A may be shipped as part of a 2 component acrylic adhesive kit under UN 3269 POLYESTER RESIN KIT.

US DOT Road

DOT Proper Shipping Name: Organic peroxide type E, solid
DOT Hazard Class: 5.2
SECONDARY HAZARD: None
DOT UN/NA Number: 3108
Packing Group: II
Emergency Response Guide Number: 145

IATA Cargo

PROPER SHIPPING NAME: Organic peroxide type E, solid
DOT Hazard Class: 5.2
HAZARD CLASS: None
UN-NUMBER: 3108
PACKING GROUP: II
EMS: 5L

IMDG

PROPER SHIPPING NAME: Organic peroxide type E, solid
DOT Hazard Class: 5.2
HAZARD CLASS: None
PACKING GROUP: II
EMS: F-J

The listed transportation classification applies to US DOT Road, IATA Cargo, and IMDG non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS:

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>
Benzoyl peroxide	94-36-0	25.0%

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS

The chemical substances in this product are on the TSCA Section 8 Inventory.

EXPORT NOTIFICATION

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

NONE

16. OTHER INFORMATION

Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

HMIS RATINGS - HEALTH: 2 FLAMMABILITY: 1 PHYSICAL HAZARD: 2

* - Indicates a chronic hazard; see Section 2

Revision: changes to Sections 11, 13, and 14

Effective Date: November 23, 2015

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Click Bond - CB200B - Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CB200B
Product Use/Class: Part B of 2 part Acrylic adhesive kit

Click Bond, Inc.
2151 Lockheed Way
Carson City, NV 89706-0713

Telephone: 775-885-8000
Non-Transportation Emergency Telephone No.: 800-255-3924
Emergency: Chemtel 24 Hour Emergency No.: 800-255-3924
Outside Continental USA: 813-248-0585 (Call Collect)

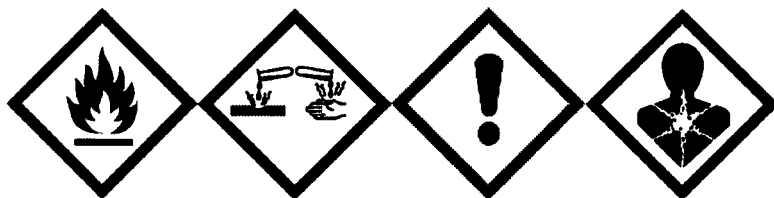
2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 2
Acute toxicity Inhalation - Dust and Mist Category 4 - 32.4% of the mixture consists of ingredient(s) of unknown toxicity.
Acute toxicity Inhalation - Vapors Category 4 - 32.4% of the mixture consists of ingredient(s) of unknown toxicity.
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Respiratory sensitization Category 1
Carcinogenicity Category 2
Reproductive toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 1 circulatory system, Nervous system, Hematopoietic System
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (repeated exposure) Category 1 Blood, Liver, spleen, Adrenal gland, Kidney, Nervous system, Central nervous system, Respiratory system
Hazardous to the aquatic environment - acute hazard Category 2
Hazardous to the aquatic environment - chronic hazard Category 3

GHS LABEL ELEMENTS:

Symbol(s)



Signal Word

DANGER

Hazard Statements

Highly flammable liquid and vapor.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to organs (circulatory system, Nervous system, Hematopoietic System).
May cause respiratory irritation.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure (Blood, Liver, spleen, Adrenal gland, Kidney, Nervous system, Central nervous system, Respiratory system).
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
In case of inadequate ventilation wear respiratory protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.

Response

In case of fire: refer to section 5 of SDS for extinguishing media.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

Storage

Store in a well-ventilated place. Keep cool.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: May be absorbed through the skin in harmful amounts. May cause headache and nausea. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: Prolonged or repeated contact may result in dermatitis. Contains N,N-Dimethylaniline. Excessive overexposure by skin absorption or ingestion may result in anoxia due to the formation of methemoglobin. This condition impairs the blood's ability to transport oxygen. ACGIH considers molybdenum to be an A3 carcinogen (confirmed animal carcinogen with unknown relevance in humans).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Range
Methyl methacrylate	80-62-6	50 - 55%
Methacrylic acid	79-41-4	5 - 10%
Methacrylate phosphate ester	PROPRIETARY	1 - 5%
N,N-Dimethylaniline	121-69-7	1 - 5%
Amine curative	PROPRIETARY	1 - 5%
Calcium molybdate	7789-82-4	0.1 - 0.9%
Methacrylate monomer	PROPRIETARY	0.1 - 0.9%

Any "PROPRIETARY" component(s) in the above table is considered trade secret, thus the specific chemical and its exact concentration is being withheld.

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIREFIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Flammable liquid and vapor. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flame, and other sources of ignition. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks). Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the SDS form. Using non-sparking tools, scoop the spilled material into a container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Ground and bond containers when transferring material. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Use with adequate ventilation. Because empty containers may retain product residue and flammable vapors, keep away from heat, sparks and flame; do not cut, puncture or weld on or near the empty container. Do not smoke where this product is used or stored.

STORAGE: Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements. Store only in well-ventilated areas. Keep container closed when not in use.

INCOMPATIBILITY: Inorganic acids, organic acids, caustics, oxidizing agents, amines, peroxides, metals, reducing agents, acids, and bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

Chemical Name	ACGIH TLV		OSHA PEL		Skin
	TWA	STEL	TWA	CEILING	
Methyl methacrylate	50 ppm	100 ppm	410 mg/m ³ 100 ppm	N.E.	N.A.
Methacrylic acid	20 ppm	N.E.	N.E.	N.E.	S
Methacrylate phosphate ester	N.E.	N.E.	N.E.	N.E.	N.A.
N,N-Dimethylaniline	5 ppm	10 ppm	25 mg/m ³ 5 ppm	N.E.	S
Amine curative	N.E.	N.E.	N.E.	N.E.	N.A.
Calcium molybdate	3 mg/m ³	N.E.	5 mg/m ³	N.E.	N.A.
Methacrylate monomer	N.E.	N.E.	N.E.	N.E.	N.A.

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

Engineering controls: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapor/air mixtures from accumulating.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

RESPIRATORY PROTECTION: Contains a small amount of dimethylaniline (DMA) which has poor odor warning properties. If the exposure limit for DMA is exceeded, an air-supplied respirator is recommended. Otherwise, a NIOSH approved properly-fitted organic vapor, air purifying respirator is recommended. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact. If contact with the product is prolonged or repeated, Silver Shield or Butyl rubber gloves are recommended.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

ODOR:	Sweet	VAPOR PRESSURE:	N.D.
APPEARANCE:	Off-white	VAPOR DENSITY:	Heavier than Air
PHYSICAL STATE:	Liquid	LOWER EXPLOSIVE LIMIT:	1% (V)
FLASH POINT:	65°F (18°C) Setaflash Closed Cup	UPPER EXPLOSIVE LIMIT:	8.8% (V)
BOILING RANGE:	N.A.	EVAPORATION RATE:	Faster than n-butylacetate.
AUTOIGNITION TEMPERATURE:	N.D.	DENSITY:	8.64 lb/gal (1.04 g/cm ³)
DECOMPOSITION TEMPERATURE:	N.D.	VISCOSITY, DYNAMIC:	N.D.
ODOR THRESHOLD:	N.D.	VISCOSITY, KINEMATIC:	N.D.
SOLUBILITY IN H₂O:	Insoluble	VOLATILE BY WEIGHT:	0.02%
pH:	N.A.	VOLATILE BY VOLUME:	0.02%
FREEZE POINT:	N.D.	VOC CALCULATED:	0 lb/gal (0 g/l)
COEFFICIENT OF WATER/OIL DISTRIBUTION: N.D.			

NOTE: In normal use, the acrylate monomer in this product is considered to be non-volatile and is polymerized during cure. For purposes of air quality regulations, the maximum amount of VOC emitted is less than 5%. Actual emissions are a function of processing conditions. VOC is evaluated in combination with CB200A.

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerize with heat evolution; storage above 100°F and below 32°F. Exposure to sunlight, ultraviolet light irradiation. Avoid dropping or puncture of containers; heat, flames and sparks.

INCOMPATIBILITY: Inorganic acids, organic acids, caustics, oxidizing agents, amines, peroxides; metals; reducing agents; acids and bases

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

Chemical Name	LD50/LC50
Methyl methacrylate	Oral LD50: Rat 7,872 mg/kg Oral LD50: Rat 7,900 mg/kg Dermal LD50: Rabbit > 5 g/kg Inhalation LC50: Rat 4632 ppm/4 h
Methacrylic acid	Oral LD50: Rat 1,060 mg/kg Dermal LD50: Rabbit 500 - 1,000 mg/kg Inhalation LC50: Rat 7.1 mg/l /4 h
Methacrylate phosphate ester	Oral LD50: rat > 5,000 mg/kg
N,N-Dimethylaniline	Oral LD50: Rat 700 mg/kg Dermal LD50: Rabbit 1770 µL/kg Inhalation LC50: Rat > 5.1 mg/l /4 h
Amine curative	N.D.
Calcium molybdate	GHS LC50 (vapor): Acute toxicity point estimate 55 mg/l
Methacrylate monomer	Oral LD50: Rat 5,050 mg/kg Dermal LD50: Rabbit > 3,000 mg/kg

Germ cell mutagenicity: No classification proposed

Carcinogenicity: Category 2 - Suspected of causing cancer.

Components contributing to classification: N,N-Dimethylaniline.

Reproductive toxicity: Category 2 - Suspected of damaging fertility or the unborn child.

Components contributing to classification: Methyl methacrylate. Zinc compound.

12. ECOLOGICAL INFORMATION**ECOTOXICITY:**

Chemical Name	Ecotoxicity
Methyl methacrylate	Fish: Pimephales promelas 243 - 275 mg/l/96 h flow-through Pimephales promelas 125.5 - 190.7 mg/l/96 h Static Lepomis macrochirus 170 - 206 mg/l/96 h flow-through Lepomis macrochirus 153.9 - 341.8 mg/l/96 h Static Oncorhynchus mykiss > 79 mg/l/96 h flow-through Oncorhynchus mykiss > 79 mg/l/96 h Static Poecilia reticulata 326.4 - 426.9 mg/l/96 h Static Invertebrates: Daphnia magna 69 mg/l/48 h Plants: Pseudokirchneriella subcapitata 170 mg/l/96 h
Methacrylic acid	N.D.
Methacrylate phosphate ester	N.D.
N,N-Dimethylaniline	Fish: Pimephales promelas 52.6 mg/l/96 h flow-through Pimephales promelas 65.6 mg/l/96 h Poecilia reticulata 53.7 mg/l/96 h semi-static Brachydanio rerio 51.1 mg/l/96 h semi-static Brachydanio rerio 0.183 - 0.186 mg/l/96 h Invertebrates: Daphnia magna 5 mg/l/48 h Plants: Desmodemus subspicatus 340 mg/l/96 h
Amine curative	N.D.
Calcium molybdate	N.D.
Methacrylate monomer	Fish: Pimephales promelas 213 - 242 mg/l/96 h flow-through Pimephales promelas 227 mg/l/96 h

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORT INFORMATION

CB200B may be shipped as part of a 2 component acrylic adhesive kit under UN 3269 POLYESTER RESIN KIT.

US DOT Road

DOT Proper Shipping Name: Adhesives
DOT Hazard Class: 3
SECONDARY HAZARD: None
DOT UN/NA Number: 1133
Packing Group: II
Emergency Response Guide Number: 128

IATA Cargo

PROPER SHIPPING NAME: Adhesives
DOT Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: 3L

IMDG

PROPER SHIPPING NAME: Adhesives
DOT Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: F-E

The listed transportation classification applies to US DOT Road, IATA Cargo, and IMDG non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS:

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>
Methyl methacrylate	80-62-6	55.0%
N,N-Dimethylaniline	121-69-7	5.0%

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS: The chemical substances in this product are on the TSCA Section 8 Inventory.

EXPORT NOTIFICATION: This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

NONE

16. OTHER INFORMATION

Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 3 PHYSICAL HAZARD: 1

* - Indicates a chronic hazard; see Section 2

Revision: changes to Sections 2, 3, 11, 13, and 14

Effective Date: November 23, 2015

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Click Bond CB911 Solvent Wipe – Safety Data Sheet

1. Identification

Product Name: CB911 Solvent Wipe

Product Use: An industrial degreaser designed to remove oil, grease, wax, moisture, dirt or other contaminants from parts and equipment.

Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information:

Company: Click Bond, Inc.

Address: 2151 Lockheed Way
Carson City, NV 89706

Information Phone: (775) 885-8000

24 Hour Emergency Phone: (800) 255-3924 (CHEM•TEL)

Outside North America Phone: (813) 248-0585 Call Collect

Website: <http://www.clickbond.com>

2. Hazard(s) identification

Physical hazards Flammable liquids

Category 2

Health hazards

Skin corrosion/irritation

Category 2

Serious eye damage/eye irritation

Category 2A

Specific target organ toxicity, single exposure

Category 3 narcotic effects

Aspiration hazard

Category 1

Environmental hazards

Not classified.

OSHA defined hazards

Not classified.

Label elements



Signal word

Danger

Hazard statement

Highly flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.

Response

In case of fire: Use appropriate media to extinguish. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Specific treatment (see this label). Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-7	30 - 40
Heptane		142-82-5	30 - 40
Cyclohexylmethane		108-87-2	20 - 30
Primary Amyl Acetate		628-63-7	1 - 5

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.

Most important symptoms/effects, acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Firefighting measures

Suitable extinguishing media

Alcohol resistant foam. Water spray. Water fog. Carbon dioxide (CO₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm
Cyclohexylmethane (CAS 108-87-2)	PEL	2000 mg/m ³ 500 ppm
Heptane (CAS 142-82-5)	PEL	2000 mg/m ³ 500 ppm
Primary Amyl Acetate (CAS 628-63-7)	PEL	525 mg/m ³ 100 ppm

US ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL TWA	750 ppm 500 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	400 ppm
Heptane (CAS 142-82-5)	STEL TWA	500 ppm 400 ppm
Primary Amyl Acetate (CAS 628-63-7)	STEL TWA	100 ppm 50 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
Cyclohexylmethane (CAS 108-87-2)	TWA	1600 mg/m ³ 400 ppm
Heptane (CAS 142-82-5)	Ceiling TWA	1800 mg/m ³ 440 ppm 350 mg/m ³ 85 ppm
Primary Amyl Acetate (CAS 628-63-7)	TWA	525 mg/m ³ 100 ppm

Biological Limit Values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Eye wash fountain and emergency showers are recommended.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal hazards

None known.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Liquid.

Physical state

Liquid.

Form

Liquid.

Color

Clear, Colorless

Odor

Ether-like. Fruity.

Odor threshold

Not established

pH

Not applicable

Melting point/freezing point

Not established

Initial boiling point and boiling range

> 132.8°F (> 56°C)

Flash point

1.4°F (-17.0°C) Tag Closed Cup

Evaporation rate

> 1 (BuAc = 1)

Flammability (solid, gas)

Highly flammable liquid

Upper/Lower flammability or explosive limits

Flammability limit-lower (%)

1.2 %

Flammability limit-upper (%)

12.8 %

Explosive limit-lower (%)

Not available.

Explosive limit-upper (%)

Not available.

Vapor pressure

> 75 mm Hg @ 20°C

Vapor density

~ 3 (air = 1)

Relative density

Not available.

Solubility(ies)

Solubility (water)

35 % w/w

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not established

Decomposition temperature

Not established

Viscosity

Not established

Other information

Heat of Combustion

> 30 kJ/g

Percent volatile

100 %

Specific gravity

0.74 - 0.76 @ 20°C

VOC (Weight %)

65 % per U.S. State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability

Material is stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials

Acids. Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Ingestion

Inhalation

Skin contact

Eye contact

Symptoms related to the physical, chemical and toxicological characteristics

May be fatal if swallowed and enters airways.

Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Causes skin irritation.

Causes serious eye irritation.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. Exposure may cause temporary irritation, redness, or discomfort. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Decrease in motor functions. Behavioral changes.

Information on toxicological effects

Acute toxicity

May be fatal if swallowed and enters airways. Narcotic effects.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 15800 mg/kg 20 ml/kg
<i>Inhalation</i>		
LC50	Rat	55700 ppm 76 mg/l, 4 Hours 50.1 mg/l 50.1 mg/l, 8 Hours
<i>Oral</i>		
LD50	Mouse Rabbit Rat	3000 mg/kg 5340 mg/kg 5800 mg/kg 2.2 ml/kg
<i>Other</i>		
LD50	Mouse Rat	1297 mg/kg 5500 mg/kg
Cyclohexylmethane (CAS 108-87-2)		
Acute		
<i>Dermal</i>		
LD50	Rat	≥ 4 ml/kg
<i>Inhalation</i>		
LC25	Rabbit	7300 mg/l
LC50	Rat	16 mg/l
<i>Oral</i>		
LD50	Rat	> 8 ml/kg
Heptane (CAS 142-82-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 29.29 mg/l 103 mg/l, 4 Hours 75 mg/l, 2 Hours
LD50	Mouse	
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
<i>Other</i>		
LD50	Mouse	222 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization

Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

ACGIH Carcinogens

Acetone (CAS 67-64-1)

A4 Not classifiable as a human carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

Narcotic effects.

Specific target organ toxicity - repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

May be fatal if swallowed and enters airways.

Chronic effects

Prolonged inhalation may be harmful.

12. Ecological information**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	10294 – 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	4740 – 6330 mg/l, 96 hours
Cyclohexylmethane (CAS 108-87-2)			
Aquatic			
Fish	LC50	Striped bass (<i>Morone saxatilis</i>)	5.8 mg/l, 96 hours
Heptane (CAS 142-82-5)			
Aquatic			
Fish	LC50	Mozambique tilapia (<i>Tilapia mossambica</i>)	375 mg/l, 96 hours
Primary Amyl Acetate (CAS 628-63-7)			
Aquatic			
Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>)	65 mg/l, 96 hours

Persistence and degradability

Expected to biodegrade.

Bioaccumulative potential

No data available.

Partition coefficient n-octanol / water (log Kow)

Acetone	-0.24
Cyclohexylmethane	3.61
Heptane	4.66
Primary Amyl Acetate	2.3

Mobility in soil

No data available.

Other adverse effects

None known.

13. Disposal considerations**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

D001: Waste Flammable material with a flash point <140°F

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1993
UN proper shipping name	Flammable liquids, n.o.s. (Heptanes, Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP1, TP8, TP28
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (Heptanes, Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	Yes
ERG code	3H
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (Heptanes, Acetone), MARINE POLLUTANT
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	This substance/mixture is not intended to be transported in bulk.

DOT



IATA; IMDG



Marine pollutant



General information **IMDG** Regulated Marine Pollutant.

15. Regulatory information

US Federal Regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	Listed.
Primary Amyl Acetate (CAS 628-63-7)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Chemical

Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532
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Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 % weight/volume
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DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532
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US state regulations

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Cyclohexylmethane (CAS 108-87-2)
Heptane (CAS 142-82-5)
Primary Amyl Acetate (CAS 628-63-7)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Cyclohexylmethane (CAS 108-87-2)
Heptane (CAS 142-82-5)
Primary Amyl Acetate (CAS 628-63-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Cyclohexylmethane (CAS 108-87-2)
Heptane (CAS 142-82-5)
Primary Amyl Acetate (CAS 628-63-7)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Primary Amyl Acetate (CAS 628-63-7)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 06JUL15
Version # Rev. 0

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